trating their inquiry under the respective heads of—the effects of the decomposition of animal matters in grave-yards on the atmosphere; the water nuisance; the causes and prevention of fires; culinary mistakes and domestic errors; the adulterations practised in articles of food and medicine, and sophistications in domestic economy; sewerage, drainage, ventilation, cleanliness, contagion, miasma and disease; obnoxious manufacturing processes; markets and slaughter-houses; accidental poisons; roads and road-making; and London accidents.

Should these observations meet the approbation of her Majesty's honourable commissioners, I shall feel happy in furnishing them with a more complete report upon this, or any of the other subjects to which I have alluded, as far as the results of my chemical investigation and personal inquiry have extended.

I have the honour to remain, Sir,
Your obedient and very humble servant,
ABRAHAM BOOTH,
Chemical Engineer; late Lecturer on Chemistry to the Royal Adelaide Gallery.

To Henry Hobhouse, Esq.
&c. &c. &c.

NEWCASTLE AND DARLINGTON RAILWAY.—This work, under the untiring energy of Mr. Hudson, the chairman, is being pressed forward with expedition unparalleled in railway history. Within four weeks after the passing of the act, the contracts for every yard of the line have been let. Aycliffe contract, nearly six miles, was taken on Thursday week, by Mr. James Bray, for 35,000*l.*; and the Nunstan and Shincliffe contract, the same day, by Mr. Wm. Hutchinson, for 41,700*l.* Both contractors are experienced engineers.

CHIMNEY TURRET.

TO THE EDITOR OF THE BUILDER.

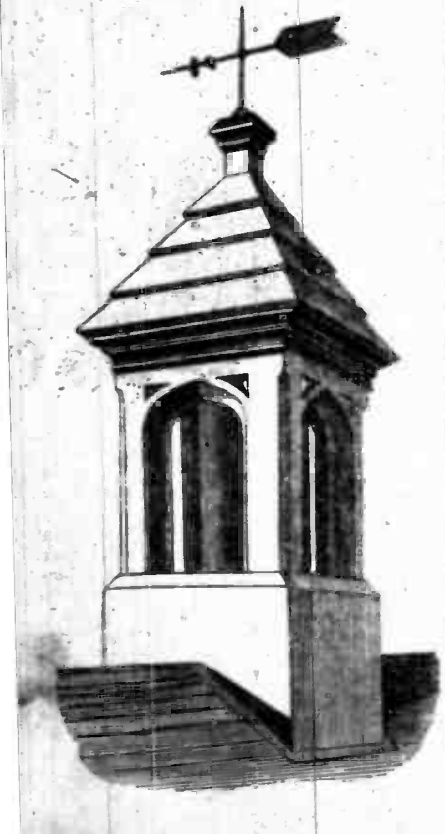
SIR,—Enclosed I send you a design for a chimney-turret, applicable to small picturesque cottages, lodges, &c.

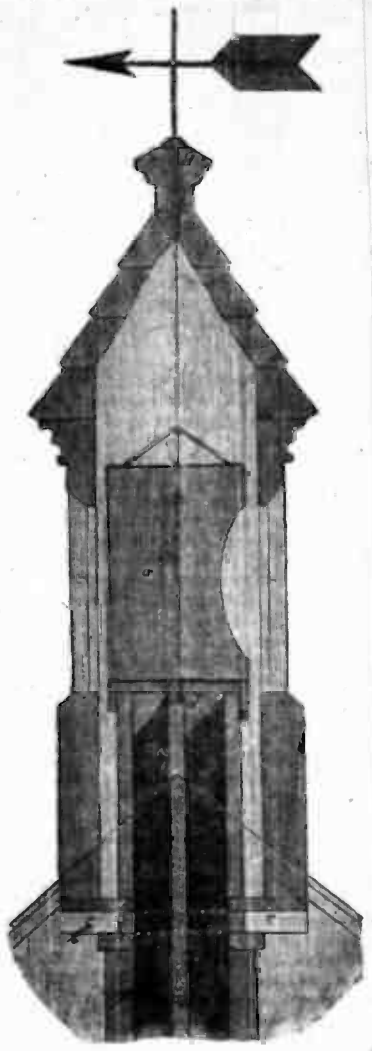
There is a method, I believe, for the prevention of smoky chimneys, by forming a small chamber under the base of the turret, for the reception of smoke from the various flues, acting by means of valves, over which is placed an iron fly; can any of your correspondents give any information concerning it?

The plan I have sent might also be applied for the ventilation of various buildings, churches, halls, &c., and where a turret is not desired, a small iron frame-work, pierced, for the escape of the confined air, might be substituted. Yours sincerely,

AN ARCHITECTURAL STUDENT.

Exeter, May, 18, 1843.





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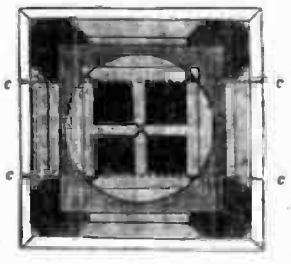

PLAN.

a, Zinc cylinder, for reception of smoke (secured to the standard of vane, which revolves in brass sockets at *d*, *d*), which turns its back on the wind, and permits the free escape of smoke.

b, Brick flues.

c c, Pieces of wrought iron, 3×¼ inches, with pieces of Yorkshire slab laid on them, to carry stone turret one way; other two sides of same carried by chimney-breast.

MARTIN'S CEMENT.

IN a former number, we stated it to be our intention to pass in review those productions and processes in manufacture which the builder will be found to be more particularly interested in, and with which, consequently, it is desirable that he should be made more intimately acquainted. But while readily taking upon ourselves this pleasing task, we would wish it to be clearly understood that we shall in no way lend ourselves to the too common practice of becoming mere chroniclers, as it were, of the superior excellence of certain productions, without having tested, and that by personal experience, the claims each and every one may put forth to public patronage. In the selection we have made this week for the subject of this article, we find little more will be left us than to record (what before has been very generally admitted by the profession and practical builders), that this is one of the most valuable cements that has ever been offered to the trade. Our own experience goes to prove that it is both hard and durable, capable of being cleaned by simple water and immediately presenting a dry surface, thereby shewing no absorption or retention of noxious vapour, and when painted, never peels, but presents a surface equal in smoothness almost to marble. In proof of the former statement, we would observe, that the interior of the Chapel Royal, Buckingham Palace, was stuccoed with Martin's cement, and in a few days after it had been applied, the edifice was fit for the reception of her Majesty. Its recent adoption in stuccoing the interior of the new Sun Fire Office, by that eminent architect, C. R. Cockerell, Esq., as well as the use of it by Government in many public works, and by Mr. T. Cubitt and other eminent builders, all go to prove its superior excellence. Among other purposes to which we have heard of its being applied, is that for forming a ground for painting a landscape, which was exhibited by Captain King, at the last meeting of the British Institution. In fine, we can safely recommend Martin's cement for all those purposes to which plasters and cements are usually made applicable.

OUR CORRESPONDENCE.

TO THE EDITOR OF THE BUILDER.

SIR,—Seeing that in your last number you mention the *eagle desk* of St. Paul's, Wilton-place, I beg to inform you, that that beautiful ornament has, from some cause or other, been removed, and a common reading-board has been substituted. Should you be able to inform me, through your excellent journal, why this beautiful device is not used, as was intended, you will greatly oblige

Yours respectfully,
C. F. H.

TO THE EDITOR OF THE BUILDER.

SIR,—I have long been of opinion that too little attention is paid to architectural modelling, and also to the mode of exhibiting them, for the purpose of studying the effect when placed under different points of view. Although in no way connected with building matters, I have on several occasions tried experiments, for the purpose of making a composition that would supersede the use of plaster of Paris, which is of too friable a nature to bear much handling in the delicately ornamented parts of a small model. Wood, pasteboard, &c., are all, more or less, objectionable.

After many trials, I at length succeeded in making a composition which answered the purpose exceedingly well, but it may, no doubt, be still further improved. It has the property of being very plastic, and when dry, is exceedingly tough; it may be carved, turned, planed, or, in fact, cut into any form that may be desired, and will receive water-colours, so that it may be tinted to suit the particular character of any building which the model is intended to represent. The basis of the composition is paper (bookbinder's cuttings) reduced to powder, under edge-stones at a drug-mill, and may therefore be said to have some affinity to papier maché, but with the manufacture of which I am totally unacquainted. The composition I am about to describe is a discovery of my own, seventeen years ago; and I feel quite at liberty to make it known to others, in the hope that it will induce some young aspirants to architectural fame to embody his ideas in a more tangible form than upon paper. The following is the Papyrus composition: Take of paper, in powder, one pound, steep it in soft water for about a week, at the end of that time squeeze out the superfluous water, and add to the paper three pounds of wheat flour; knead them into a mass with cold water, and when sufficiently plastic, mould it into the desired form. In my original experiment, I steeped one pound of paper shavings in water for a week, then squeezed out the water and kneaded them with one pound of flour, afterwards dried the mass and reduced it to powder in a mortar; to this powder I added one pound more flour, and kneaded the while into a plastic mass with cold water; the articles moulded with this mass had all the properties described above. This process was so tedious, that I got seven pounds of shavings ground under mill-stones, a portion of which I send you for distribution amongst those of your friends who feel sufficiently interested in the matter to make a trial of it.

Having succeeded in making the composition, I next turned my thoughts to arranging a plan for

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